

Claims

- [1] A structure for installing a console to a washing machine, comprising:
a top cover formed on an upper side of the washing machine;
a console to be installed on the top cover;
a first coupling structure and a second coupling structure that are formed at the console; and
a third coupling structure and a fourth coupling structure that are formed at the top cover and respectively correspond to the first and the second coupling structures for installation of the console on the top cover.
- [2] The structure according to claim 1, wherein the top cover includes a rear panel at a rear side, the first coupling structure is a front protrusion formed on a front of the console, the second coupling structure is a rear protrusion formed on a rear of the console, the third coupling structure is a front protrusion coupling portion formed on a top of the top cover for coupling with the front protrusion, and the fourth coupling structure is a rear protrusion receiving slot defined in the rear panel for coupling with the rear protrusion.
- [3] The structure according to claim 1, wherein the top cover includes a rear panel at a rear side, the first coupling structure is a front protrusion formed on a front of the console, the second coupling structure is a bottom protrusion formed on a bottom of the console, the third coupling structure is a front protrusion coupling portion for coupling with the front protrusion, the fourth coupling structure is a bottom protrusion coupling portion for coupling with the bottom protrusion, and the console is slid on the top cover to an installation position.
- [4] The structure according to claim 1, wherein the first coupling structure is a front protrusion formed on a front of the console, the second coupling structure is a fastener fixing portion for fixing a fastener, the third coupling structure is a front protrusion coupling portion for coupling with the front protrusion, the fourth coupling structure is a fastener insertion hole corresponding to the fastener fixing portion, and the console is slid on the top cover to an installation position.
- [5] The structure according to claim 1, wherein the first coupling structure is a front protrusion formed on a front of the console, the second coupling structure is a bottom protrusion formed on a bottom of the console, the third coupling structure is a front protrusion coupling portion for coupling with the front protrusion, and the fourth coupling structure is a bottom protrusion coupling portion projected a predetermined length and defining an insertion slot.
- [6] The structure according to claim 1, wherein the first coupling structure is a front protrusion formed on a front of the console, the second coupling structure is a

bottom hook formed on a bottom of the console, the third coupling structure is a front protrusion coupling portion for coupling with the front protrusion, and the fourth coupling structure is a bottom hook coupling portion projected a pre-determined length and defining an insertion slot.

- [7] The structure according to claim 1, further comprising at least one fastener for fixing the console to the top cover.
- [8] The structure according to claim 1, wherein the front protrusion has a hook shape.
- [9] A structure for installing a console to a washing machine, comprising:
 - a top cover including at least one front protrusion coupling portion;
 - a rear panel formed on a rear side of the top cover and including at least one rear protrusion receiving slot; and
 - a console including at least one front protrusion for coupling with the at least one front protrusion coupling portion and at least one rear protrusion for coupling with the at least one rear protrusion receiving slot.
- [10] The structure according to claim 9, wherein the rear protrusion is chamfered or rounded.
- [11] A structure for installing a console to a washing machine, comprising:
 - a top cover including at least one front protrusion coupling portion and at least one bottom protrusion coupling portion; and
 - a console including at least one front protrusion for coupling with the at least one front protrusion coupling portion and at least one bottom protrusion for coupling with the at least one bottom protrusion coupling portion, the console being installed on the top cover after sliding on the top cover.
- [12] The structure according to claim 11, wherein the front protrusion includes a vertical portion projected from a front bottom of the console with a pre-determined length and a horizontal portion bent from the vertical portion at a pre-determined angle.
- [13] The structure according to claim 12, wherein the front protrusion coupling portion includes an insertion hole for receiving the front protrusion and a fixing slot extended from a side of the insertion hole.
- [14] The structure according to claim 13, wherein the fixing slot has a width equal to or slightly larger than that of the vertical portion of the front protrusion.
- [15] The structure according to claim 13, wherein the insertion hole has a width and a length that are equal to or larger than those of the horizontal portion of the front protrusion.
- [16] The structure according to claim 12, wherein the horizontal portion is spaced a predetermined distance from the front bottom of the console, and the pre-

- determined distance is equal to or slightly larger than a thickness of the front protrusion coupling portion.
- [17] The structure according to claim 11, wherein the bottom protrusion includes a body protruded from a bottom of the console with a predetermined length and a head protruded from a bottom end of the body.
- [18] The structure according to claim 11, wherein both or either of the bottom protrusion and the bottom protrusion coupling portion has a circular cross section.
- [19] A structure for installing a console to a washing machine, comprising:
a top cover including at least one front protrusion coupling portion and at least one fastener insertion hole; and
a console including at least one front protrusion for coupling with the at least one front protrusion coupling portion and at least one fastener fixing portion for fixing a fastener passed through the fastener insertion hole, the console being installed on the top cover after sliding on the top cover.
- [20] The structure according to claim 19, wherein the top cover further includes a rear panel on a rear side formed with the fastener fixing portion.
- [21] The structure according to claim 19, wherein the front protrusion includes a vertical portion projected from a front bottom of the console with a predetermined length and a horizontal portion bent from the vertical portion at a predetermined angle.
- [22] The structure according to claim 21, wherein the horizontal portion is spaced a predetermined distance from the front bottom of the console, and the predetermined distance is equal to or slightly larger than a thickness of the front protrusion coupling portion.
- [23] The structure according to claim 21, wherein the front protrusion coupling portion includes an insertion hole for receiving the front protrusion and a fixing slot extended from a side of the insertion hole.
- [24] The structure according to claim 23, wherein the fixing slot has a width equal to or slightly larger than that of the vertical portion of the front protrusion.
- [25] The structure according to claim 23, wherein the insertion hole has a width and a length that are equal to or larger than those of the horizontal portion of the front protrusion.
- [26] A structure for installing a console to a washing machine, comprising:
a top cover including at least one front protrusion coupling portion and at least one bottom protrusion coupling portion, the bottom protrusion coupling portion projected a predetermined length and defining an insertion slot; and
a console including a front protrusion for coupling with the front protrusion

- coupling portion and a bottom protrusion for coupling with the bottom protrusion coupling portion.
- [27] The structure according to claim 26, wherein the bottom protrusion is n-shaped.
- [28] The structure according to claim 26, wherein the bottom protrusion coupling portion includes a first bent portion bent from the top cover at a predetermined angle, a third bent portion bent from the top cover at a predetermined angle, a second bent portion bent from the first bent portion at a predetermined angle, and a fourth bent portion bent from the third bent portion at a predetermined angle.
- [29] The structure according to claim 26, wherein the bottom protrusion coupling portion and the bottom protrusion have elongated shapes in a front and rear direction.
- [30] The structure according to claim 26, wherein the bottom protrusion coupling portion is chamfered or rounded.
- [31] A structure for installing a console to a washing machine, comprising:
a top cover including at least one front protrusion coupling portion and at least one bottom hook coupling portion, the bottom hook coupling portion projected a predetermined length and defining an insertion slot; and
a console including a front protrusion for coupling with the front protrusion coupling portion and a bottom hook for coupling with the bottom hook coupling portion.
- [32] The structure according to claim 31, wherein the bottom hook includes a hooking portion having a smooth shape.
- [33] The structure according to claim 31, wherein the bottom hook is n-shaped.
- [34] The structure according to claim 31, wherein the bottom hook coupling portion is chamfered or rounded.
- [35] A structure for installing a console to a washing machine, comprising:
a top cover;
at least one front protrusion coupling portion formed on the top cover;
at least one bottom hook coupling portion projected from the top cover with a predetermined length and defining an insertion slot;
a console;
at least one front protrusion formed at a front of the console for coupling with the front protrusion coupling portion; and
at least one bottom hook formed at a bottom of the console for coupling with the bottom hook coupling portion, the bottom hook including an insertion end, an elastic extension facing the insertion end, and a pointed end connecting the insertion end and the elastic extension.
- [36] The structure according to claim 35, wherein the pointed end has a sharp shape

or tapered shape.

- [37] The structure according to claim 35, wherein the insertion slot has a smaller width than a distance between the insertion end and the elastic extension.
- [38] The structure according to claim 35, wherein both or either of the insertion end and the elastic end is elastic.
- [39] A method for installing a console to a washing machine, comprising:
preparing a top cover on a top of the washing machine, a console to be installed to the top cover, first and second coupling structures at the console, and third and fourth coupling structures at the top cover in association with the first and the second coupling structures;
coupling the first coupling structure to the third coupling structure; and
coupling the second coupling structure to the fourth coupling structure in association with the coupling between the first coupling structure and the third coupling structure.
- [40] The method according to claim 39, wherein the preparing includes forming a rear panel at a rear side of the top cover, the first coupling structure is a front protrusion formed on a front of the console, the second coupling structure is a rear protrusion formed on a rear of the console, the third coupling structure is a front protrusion coupling portion formed on a top of the top cover for coupling with the front protrusion, and the fourth coupling structure is a rear protrusion receiving slot defined in the rear panel for coupling with the rear protrusion, and wherein the coupling of the second coupling structure includes:
seating the console on the top cover by rotating the console about the front protrusion; and
inserting the rear protrusion into the rear protrusion receiving slot.
- [41] The method according to claim 39, wherein the preparing includes forming a rear panel at a rear side of the top cover, the first coupling structure is a front protrusion formed on a front of the console, the second coupling structure is a bottom protrusion formed on a bottom of the console, the third coupling structure is a front protrusion coupling portion for coupling with the front protrusion, and the fourth coupling structure is a bottom protrusion coupling portion for coupling with the bottom protrusion,
and wherein the coupling of the first coupling structure includes seating the console on the top cover,
and wherein the coupling of the second coupling structure includes sliding the console on the top cover and coupling the console to the top cover.
- [42] The method according to claim 39, wherein the first coupling structure is a front protrusion formed on a front of the console, the second coupling structure is a

fastener fixing portion for fixing a fastener, the third coupling structure is a front protrusion coupling portion for coupling with the front protrusion, and the fourth coupling structure is a fastener insertion hole corresponding to the fastener fixing portion,

and wherein the coupling of the first coupling structure includes seating the console on the top cover,

and wherein the coupling of the second coupling structure includes sliding the console on the top cover, coupling the console to the top cover, and fixing the console to the top cover using at least one fastener.

[43] The method according to claim 39, wherein the first coupling structure is a front protrusion formed on a front of the console, the second coupling structure is a bottom protrusion formed on a bottom of the console, the third coupling structure is a front protrusion coupling portion for coupling with the front protrusion, and the fourth coupling structure is a bottom protrusion coupling portion projected a predetermined length and defining an insertion slot,

and wherein the coupling of the second coupling structure includes:

rotating the console a predetermined angle about the front protrusion;

seating the console on the top cover; and

inserting the bottom protrusion into the bottom protrusion coupling portion.

[44] The method according to claim 39, wherein the first coupling structure is a front protrusion formed on a front of the console, the second coupling structure is a bottom hook formed on a bottom of the console, the third coupling structure is a front protrusion coupling portion for coupling with the front protrusion, and the fourth coupling structure is a bottom hook coupling portion projected a predetermined length and defining an insertion slot,

and wherein the coupling of the second coupling structure includes:

rotating the console a predetermined angle about the front protrusion;

seating the console on the top cover; and

inserting the bottom hook into the bottom hook coupling portion.

[45] The method according to claim 39, further comprising using at least one fastener to fix the console.

[46] A method for installing a console to a washing machine, the washing machine being provided with a top cover including at least one front protrusion coupling portion and a rear panel formed on a rear side of the top cover, the rear panel having at least one rear protrusion receiving slot, the console including at least one front protrusion for coupling with the at least one front protrusion coupling portion and at least one rear protrusion for coupling with the at least one rear protrusion receiving slot, the method comprising:

coupling the front protrusion to the front protrusion coupling portion;
seating the console on the top cover by rotating the console a predetermined angle about the front protrusion; and
inserting the rear protrusion into the rear protrusion receiving slot.

[47] The method according to claim 46, wherein the rear protrusion comes into contact with the rear protrusion receiving slot at a top and/or a bottom after the rear protrusion is inserted into the rear protrusion receiving slot.

[48] A method for installing a console to a washing machine, comprising:
preparing a top cover and a console, the top cover including at least one front protrusion coupling portion and at least one bottom protrusion coupling portion, the console including at least one front protrusion for coupling with the at least one front protrusion coupling portion and at least one bottom protrusion for coupling with the at least one bottom protrusion coupling portion;
seating the console on the top cover;
sliding the console on the top cover by applying force to the console; and
coupling the console to the top cover.

[49] The method according to claim 48, wherein the front protrusion includes a vertical portion projected from a front bottom of the console with a predetermined length and a horizontal portion bent from the vertical portion at a predetermined angle, and the front protrusion coupling portion includes an insertion hole for receiving the front protrusion and a fixing slot extended from a side of the insertion hole.

[50] The method according to claim 49, wherein the seating of the console includes:
inserting the horizontal portion into the insertion hole; and
contacting a bottom of the bottom protrusion to a top of the top cover.

[51] The method according to claim 49, wherein the sliding of the console includes:
moving the front protrusion to the fixing slot; and
sliding the bottom protrusion on the top cover.

[52] The method according to claim 48, wherein the coupling of the console includes:
loosely inserting the bottom protrusion into the bottom protrusion coupling portion; and
tightly inserting the bottom protrusion into the bottom protrusion coupling portion to make tight contact between an outer surface of the bottom protrusion and an inner surface of the bottom protrusion coupling portion.

[53] A method for installing a console to a washing machine, comprising:
preparing a top cover and a console, the top cover including at least one front protrusion coupling portion and at least one fastener insertion hole, the console including at least one front protrusion for coupling with the at least one front

protrusion coupling portion and at least one fastener fixing portion for fixing a fastener passed through the fastener insertion hole;
seating the console on the top cover;
sliding the console on the top cover by applying force to the console;
coupling the console to the top cover; and
coupling at least one fastener to the console.

[54] The method according to claim 53, wherein the front protrusion includes a vertical portion projected from a front bottom of the console with a pre-determined length and a horizontal portion bent from the vertical portion at a pre-determined angle, and the front protrusion coupling portion includes an insertion hole for receiving the front protrusion and a fixing slot extended from a side of the insertion hole.

[55] The method according to claim 54, wherein the sliding of the console includes moving the front protrusion to the fixing slot.

[56] The method according to claim 54, wherein the coupling of the console includes contacting the vertical portion and the horizontal portion to corresponding surfaces of the fixing slot.

[57] A method for installing a console to a washing machine, comprising:
preparing a top cover and a console, the top cover including at least one front protrusion coupling portion and at least one bottom protrusion coupling portion, the bottom protrusion coupling portion projected a predetermined length and defining an insertion slot, the console including a front protrusion for coupling with the front protrusion coupling portion and a bottom protrusion for coupling with the bottom protrusion coupling portion;
coupling the front protrusion to the front protrusion coupling portion;
rotating the console a predetermined angle about the front protrusion;
seating the console on the top cover; and
inserting the bottom protrusion into the bottom protrusion coupling portion.

[58] A method for installing a console to a washing machine, comprising:
preparing a top cover and a console, the top cover including at least one front protrusion coupling portion and at least one bottom hook coupling portion, the bottom hook coupling portion projected a predetermined length and defining an insertion slot, the console including a front protrusion for coupling with the front protrusion coupling portion and a bottom hook for coupling with the bottom hook coupling portion;
coupling the front protrusion to the front protrusion coupling portion;
rotating the console a predetermined angle about the front protrusion;
seating the console on the top cover; and

inserting the bottom hook into the bottom hook coupling portion.

[59] The method according to claim 58, wherein the inserting of the bottom hook includes:

moving an insertion end and an elastic extension of the bottom hook toward the insertion slot;

narrowing a distance between the insertion end and the elastic extension;

inserting the insertion end and the elastic extension into the insertion slot; and

fully inserting the insertion end and the elastic extension into the insertion slot to widen the distance between the insertion end and the elastic extension more than a width of the insertion slot.